

ABSTRACT

An embodiment of the present invention pertains to an electronic device that includes a substrate, a first electrode on the substrate, and substantially electrically isolated conducting polymer regions on the first electrode. The substantially electrically isolated conducting polymer regions are formed by selectively depositing a solution that includes water, polyethylenedioxythiophene ("PEDOT"), and polystyrenesulfonic acid ("PSS"), and a ratio of the PEDOT to the PSS is such that the solution has high conductivity.

Alternatively, the substantially electrically isolated conducting polymer regions can be formed by, first, nonselectively depositing the solution to form a continuous conducting polymer layer. Then, the continuous conducting polymer layer is patterned to form the substantially electrically isolated conducting polymer regions.